

**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

<b>In re Application of:</b>	<b>Khosravi</b>
<b>Application No.:</b>	<b>09/427260</b>
<b>Filed:</b>	<b>October 25, 1999</b>
<b>For:</b>	<b>Stretchable Anti-Buckling Coiled Sheet Stent</b>
<b>Examiner:</b>	<b>Brian Pellegrino</b>
<b>Group Art Unit:</b>	<b>3738</b>

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P.O. Box 1450  
Alexandria, VA 22313-1450

**Docket No.: S63.2-13525-US01**

**REPLY BRIEF**

This is a Reply Brief for the above-identified application in response to the Examiner's Answer of June 30, 2006.

A Notice of Appeal was filed in this case on February 2, 2009. An Appeal Brief was filed March 6, 2009. The fees required under §1.17(c) for filing this brief have been addressed. The Commissioner is authorized to charge Deposit Account No. 22-0350 for any other fees which may be due with this Appeal.

### **Argument**

**1. The Examiner erred in rejecting claims 29, 30, 55, 56, 59, 60, and 62-64 under 35 U.S.C. §103(a) as being unpatentable over U.S. 2001/00472000 to White et al. in view of U.S. 5,824,052 to Khosravi et al.**

In the Appeal Brief, Applicants submitted that the area/size of a cell depends on the configuration of the struts defining the cell; noted that Fig. 10 of White appeared to show a cell in an expanded state; and further noted that White did not provide an illustration of a pattern formed by a plurality of cells as shown in Fig. 10 in the unexpanded state (Appeal Brief, pp. 15-19). Therefore, Applicants concluded that because a stent pattern comprising a plurality of cells as shown in Fig. 10 in an unexpanded state was not shown in White, White does not disclose first cells and second cells as recited in the instant claims. Applicants reassert the arguments presented in the Appeal Brief.

### Inherency

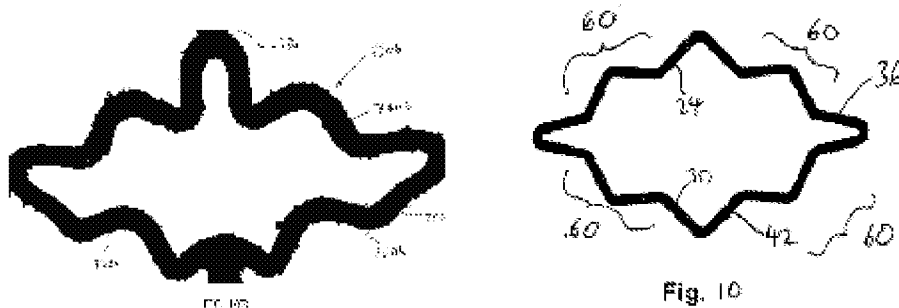
In the Examiner's Answer, the Examiner asserted that "a stent with the cells of Fig. 10 illustrated by White would inherently have the area between the rows of unexpanded cells being larger than the area of an unexpanded cell" because "even if [the Fig. 10 stent cell of White] is expanded, it is the same configuration as Applicant's Fig. 10B expanded cell ... and would form a similar orientation as Fig. 10A of Applicant's unexpanded condition having the difference in area for adjacent row cells" (Examiner's Answer, pp. 5-6). The Examiner concluded that "a stent with the cells of Fig. 10 illustrated by White would inherently have the area between the rows of unexpanded cells being larger than the area of an unexpanded cell" (Examiner's Answer, pg. 6).

With regard to inherency, MPEP 2112(IV) states:

"To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.'

Applicants understand that the Examiner has asserted that since the cell in Fig. 10 of White has the same configuration as the cell shown in Fig. 10B of the instant application, it is inherent that a pattern formed by a plurality of cells shown in Fig. 10 of White would have cells with different areas because the pattern formed by the plurality of cells in the instant application has cells with different areas (Examiner's Answer, pg. 5-6).

Applicants disagree that Fig. 10 of White is "the same configuration" as Fig. 10B of the instant application. A copy of Fig. 10B of the instant application and Fig. 10 of White are provided for reference:



As can be seen above, the turns of the struts forming bottom half of the cell in Fig. 10 of White are oriented differently than the turns of the struts forming the bottom half of the cell in Fig. 10B of the instant application. Thus, Examiner's assertion that Fig. 10 of White has the same configuration as Fig. 10B of the instant application is wrong; which means that the Examiner's conclusion that the cell in Fig. 10 of White would have the same configuration in the unexpanded state as shown in Fig. 10A of the instant application is also wrong. For at least this reason, Applicants submit that the instant application does not support the assertion that a pattern formed by a plurality of cells as shown in Fig. 10 of White would necessarily have cells with different areas. Therefore, Applicants submit that the instant application does not support the Examiner's assertion of inherency.

Impermissible Hindsight Reasoning

Applicants submit that the Examiner used impermissible hindsight reasoning to reject the instant claims with the combination of White and Khosravi. The Examiner asserted that “Khosravi et al. show (Fig. 6) a sheet stent 50 having a plurality of locking elements 51 capable of being engaged in openings in the stent when coiling the stent” and that “Khosravi additionally teaches the stent pattern used should accommodate its intended use,” citing to col. 3, lines 35-41 of Khosravi.<sup>1</sup> The Examiner further asserted that “it would have been obvious to one of ordinary skill in the art to use a coiled sheet to form the stent and include locking elements as taught by Khosravi et al. in the stent of White et al. such that it prevents collapse” (Examiner’s Answer, pg. 3).

White discloses a tubular stent comprising a plurality of struts and having a compressed state and an expanded state (see e.g. paragraphs [0008] and [0061]). As shown, for example in Figs. 6A and 6B of White, when the stent is expanded to its expanded state, circumferentially adjacent struts are moved away from one another in a radial direction:

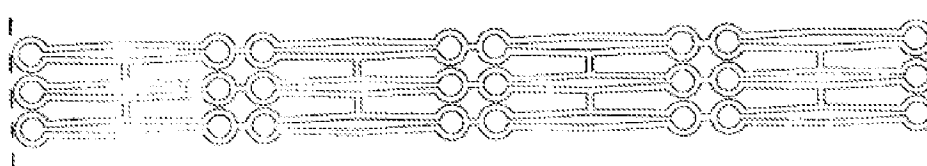


Fig. 6B - compressed state

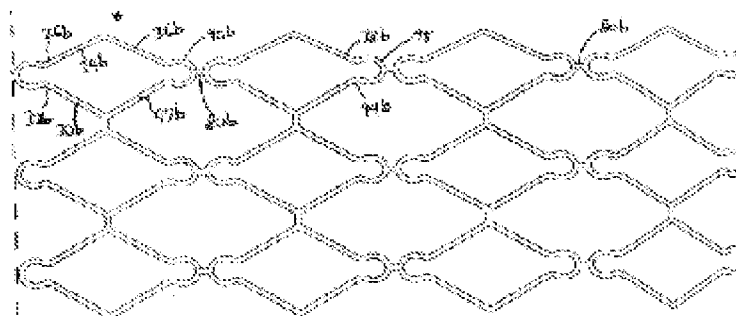


Fig. 6A - expanded state

<sup>1</sup> Applicants note that col. 3, lines 35-41 of Khosravi states:

The mesh of the coiled sheet may have a size suitable for use in smaller body arteries ... or may be scaled to accommodate larger vessels ... For larger vessels, the mesh of the coiled sheet may include articulations to assist in maneuvering the prosthesis through tortuous body passageways. Applicants submit that this portion of Khosravi does not teach that “the stent pattern used should accommodate its intended use,” as asserted by the Examiner.

Khosravi discloses a graft stent comprising a coiled sheet portion and a graft material affixed onto the coiled sheet portion (col. 4, lines 61-63). Khosravi discloses that “because the lattice of the coiled sheet portion ***does not undergo longitudinal or radial distortion*** during deployment, the graft material of the graft stent ... is not subjected to stress or distortion that could lead to perforation of the graft material during deployment and use” (col. 7, lines 62-67, emphasis added; see also col. 8, lines 53-56 and col. 9, lines 5-7).

Thus, the stent of White and the stent-graft of Khosravi expand in two different ways. The lattice of the stent of White undergoes radial distortion during expansion whereas the lattice of the stent-graft of Khosravi does not undergo radial distortion during expansion. Applicants note that Khosravi does not teach or suggest a coiled sheet portion that undergoes radial distortion during expansion. Consequently, Applicants submit that the knowledge that the coiled sheet portion can undergo radial distortion was gleaned from, and is only disclosed in, the instant application (see e.g. pg. 5, line 20 to pg. 6, line 1 and Figs. 1A-1B of the instant application). This is exactly the type of hindsight reasoning that is improper according to the MPEP:

However, “[a]ny judgement on obviousness is in a sense necessarily a reconstruction based on hindsight reasoning, but ***so long as it takes into account only knowledge which was within the level of ordinary skill in the art at the time the claimed invention was made and does not include knowledge gleaned only from applicant's disclosure***, such a reconstruction is proper.”  
(MPEP §2145(X)(A), emphasis added)

Therefore, Applicants submit that a *prima facie* case of obviousness was not presented and the combination of White and Khosravi does not render the instant claims obvious.

### Conclusion

Based on the above and the Appeal Brief, Applicants submit that White does not disclose a plurality of first cells and a plurality of second cells as recited in the instant claims. The addition of a coiled sheet with locking elements asserted to be disclosed by Khosravi does nothing to address the failure of White to disclose a plurality of first cells and a plurality of second cells as recited in the instant claims. Moreover, impermissible hindsight reasoning was

used to reject the instant claims as being obvious in view of the combination of White and Khosravi.

**Conclusion**

The instant claims are patentable over White and Khosravi. Consequently, reversal of the rejections is respectfully requested.

Respectfully submitted,  
VIDAS, ARRETT & STEINKRAUS, P.A.

Date: August 31, 2009

By: / Jennifer L. Buss /  
Jennifer L. Buss  
Attorney of Record  
Registration No. 57,321

6640 Shady Oak Rd.  
Suite 400  
Eden Prairie, MN 55344  
Phone: (952) 563-3000  
Facsimile: (952) 563-3001